

ARNOLD GNANASELVAM

Software Engineer, Product

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SUMMARY

Software Engineer passionate about building reliable, scalable systems. Built production microservices and event-driven systems (Java, Node.js) owning features from prototype through deployment. Love debugging distributed systems problems and thinking through edge cases in payments and billing workflows. Quick learner comfortable diving into unfamiliar codebases. Interested in teams where uptime is measured in nines and correctness isn't optional.

EXPERIENCE

Synthesis Healthsoft Service & Solutions LLP

Chennai, India

June 2024 – Present

Junior Software Developer

- Owned product-indexing microservice from design through production—designed schema, added composite indexes and Redis caching to hit <100ms p50 reads serving 60K daily lookups. Added CI tests that fail when performance regresses.
- Reduced API p50 latency 30% (140ms → 95ms) via schema redesign and targeted indexing. Added CI performance gates to maintain SLAs.
- Built event-driven ingestion system (Kafka-style) with batching, backpressure, replay, and durability guarantees. Integrated into CI for correctness validation before production.
- Ramped up on 50K+ LOC Node.js/Java codebase in first month. Now comfortable jumping between unfamiliar services to debug issues or add features.
- Led code review practices: enforced PR checklist (tests, docs, metrics), mentored peers, improved merge quality. Write detailed reviews assuming reviewers need full context.
- Implemented JWT auth, unit/integration tests, and CI gating. Decreased post-merge incidents. Defined SLOs, added monitoring dashboards, and participated in incident postmortems.
- Collaborated with product and frontend teams to iterate prototypes and launch betas. Shipped 3 features to GA after incorporating user feedback.
- Exploring open-source projects we depend on—reading code to understand behavior and planning to contribute learnings back upstream.

EDUCATION

Bishop Heber College, Bharathidasan University

Cuddalore, Tamil Nadu

Bachelor of Science in Computer Science

Aug 2021 – Apr 2024

PROJECTS

Inventory Index & Ingestion Prototype | Node.js, Redis, Elasticsearch, CI/CD

2024

- Built Node.js + Redis + Elasticsearch pipeline maintaining <100ms p50 reads during heavy writes. Simulated failure scenarios (node crashes, event replay, partial failures) and validated graceful recovery. Integrated performance tests into CI.

Distributed Caching System | Java, TCP/IP, P2P | ⚙️

2024

- P2P cache in Java with replication and eventual consistency. Tested under chaotic conditions (node crashes, network delays, split-brain). Measured lookup latency and replication lag under failure modes. Clean interfaces with comprehensive docs.

Real-Time Chat App | React, Node.js, MongoDB, Socket.io, WebSockets

2023

- WebSocket service with group/private messaging, presence tracking, and reconnection logic. Implemented message delivery guarantees and ordering under disconnections.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, Node.js | **Learning:** Ruby, Go

Backend: Spring Boot, Express, RESTful APIs, Microservices, Distributed systems

Data: PostgreSQL, MySQL, Redis, Elasticsearch, schema/index optimization

Messaging: Kafka, RabbitMQ, Event-driven architecture

Cloud & Infra: AWS (EC2, Lambda, RDS, S3), Docker, Kubernetes, CI/CD (GitHub Actions, Jenkins)

Practices: Git, code review, PR checklists, feature flags, monitoring, incident response, cross-functional collaboration, technical writing, backward compatibility

Domain: Payments, Subscriptions, Billing, Retry/Idempotency patterns, HTTP/REST contract stability, JWT/OAuth

ACHIEVEMENTS

API Performance

2024

- Improved p50 by 30% serving 60K+ daily requests via schema redesign and indexing. Added CI gates preventing regressions.

System Design

2024

- Designed high-throughput ingestion prototype validated for durability under simulated load and failure scenarios.

Collaboration

2024

- Shipped 3 beta features to GA working with product/frontend teams, iterating on user feedback.

LEARNING & INTERESTS

Actively learning Ruby/Go. Reading Stripe API docs and Increment magazine. Deep interest in payment systems reliability: idempotency, retry logic, reconciliation. Following distributed systems research: consensus algorithms, event sourcing, CQRS.